

## 9 INDIVIDUALS AND INTERACTIONS OVER PROCESSES AND TOOLS

This chapter of our book will discuss the importance of motivated human beings, and the interaction between them, to enable effective Agile delivery. We will look at what motivates individuals and present some ideas to help motivate individuals and teams. We will overview some ideas for enabling self-organising teams and discuss their importance to Agile emergent design. We will also look at the importance of understanding team dynamics and how to enable dynamic delivery within a team.

The Agile lead is the person who is responsible for facilitating processes and enabling individuals and the team to be as effective as they can be. This does not mean that the Agile lead needs to be an expert psychologist, however, an appreciation of team building and what enables individuals and interactions to be effective is important.

### 9.1 MOTIVATED AND TALENTED INDIVIDUALS

The fifth of the twelve principles underlying the Agile Manifesto (see [Section 1.2](#)) starts with ‘Build projects around motivated individuals...’

Motivation releases energy and creativity and is an essential component of high performance. The following sections will look at a few different approaches to understanding what motivates individuals and the vital role that talent plays in achieving high performance.

#### 9.1.1 Hierarchy of needs

Maslow noted:

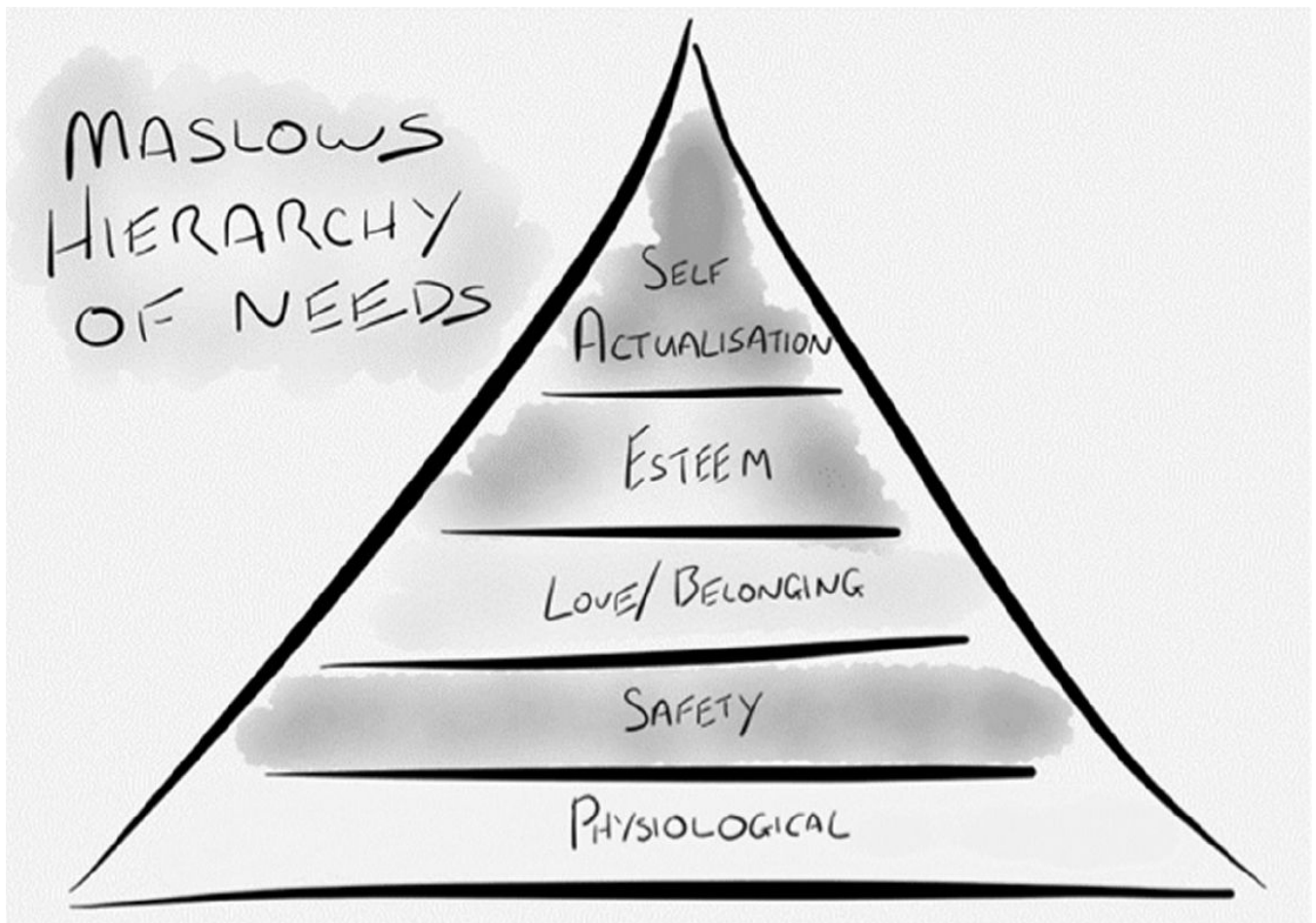
It is quite true that man lives by bread alone – when there is no bread. But what happens to man’s desires when there is plenty of bread and when his belly is chronically filled?

(Maslow, 1943)

Maslow’s approach towards developing a humanistic psychological model related to change deviated from the common path that earlier psychologists followed (analysing people as a ‘bag of symptoms’). His starting point was to identify the factors that contribute to creativity, compassion, spontaneity, morality and problem solving. Through observations of subjects that exhibited characteristics of meta-motivation, the urge for continuous improvement and achievement, Maslow developed the ‘hierarchy of needs’ (see [Figure 9.1](#)).

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#### Figure 9.1 Maslow’s hierarchy of needs



Maslow suggested that, once our basic needs are met, our behaviour will be driven by meeting higher-level needs. He suggested that there is a hierarchy of needs and once the needs lower down the hierarchy are met, further needs come into focus.

These different levels of needs are often expressed as a pyramid, originally with five layers, later expanded to eight, (Maslow, 1970a,b; [Figure 9.1](#)).

The cornerstone of Maslow's theory was the assumption that human beings have inner impetus to continually develop and succeed. He assumed that human beings have the natural propensity to move towards self-actualisation by satisfying preceding needs. For instance, individuals will not focus their attention on self-actualisation if physiological needs have not been satisfied adequately.

The first four layers of the pyramid, called deficiency needs, are perceived as fundamental to one's wellbeing: physical needs, safety, love and friendship, and self-esteem. Need deficiency is considered a great motivator, as absence of satisfaction drives for further achievement.

Human survival requirements, such as food, water and air, comprise physiological needs. Sexual release and reproduction also belong in this category. The absence of these will create various psychological symptoms, such as hunger, thirst, discomfort and frustration.

The next group of needs that takes precedence once physiological needs are satisfied adequately is safety needs. They are concerned with physical safety, economic security, health and wellbeing, and protection against accidents/illness.

With safety needs fulfilled, love and belonging become prominent and dominate

behaviour. These interpersonal needs are related to affection and involvement from an emotional perspective, and therefore require a degree of reciprocity. The sense of belonging and acceptance, for instance in working groups, church congregations, professional bodies and sports teams, can foster creativity and motivation. Although higher in the pyramid, it is perceived of particular significance, as loneliness and neglect may lead to social anxiety, withdrawal and depression.

The penultimate group in Maslow's hierarchy covers self-esteem and self-respect, which can be fulfilled through achieving competence or excellence in particular skills at professional, personal and social levels. These provide the sense of contribution, achievement, recognition, freedom and attention.

In spite of adequately fulfilling deficiency needs, Maslow observed the continual need to discover one's full potential, which is the need for self-actualisation: 'the desire to accomplish everything that one is capable of becoming'. Once individuals have achieved self-actualisation they can provide their support to others.

Subsequent research has confirmed that these **needs** are indeed universal (although there is actually no evidence that the specific **hierarchy** is similarly universal (Wahba and Bridwell, 1976). As such, Maslow's model can help identify what motivates people depending on which needs they are trying to meet.

Maslow's work is also a foundation of many motivational theories, one of which is described in [Section 9.1.3](#).

### **9.1.2 Management's attitude determines motivation**

Douglas McGregor's seminal 1960 work *The Human Side of Enterprise* (McGregor, 1960; McGregor and Gershenfeld, 2006) proposed that the interaction between management and employees is the primary source of motivation at work. McGregor drew out two possible sets of beliefs managers might hold, which he labelled Theory X and Theory Y ([Table 9.1](#)).

Theory X sees employees as inherently lazy and genuinely disliking work. It assumes that they require close supervision and control systems; show lack of ambition without an appealing incentive programme; avoid taking responsibility; operate under punishment and threats; and that their personal goals go against organisational goals and their creativity and imagination are not used at work.

In contrast, Theory Y assumes that employees are ambitious, self-motivated and self-controlled; treat work as natural and normal; take initiative for their own learning; accept responsibility and commit to organisation's objectives; and that they appreciate and respond positively to recognition and encouragement, enjoy problem solving activities and feel demotivated if their talents are not fully used.

According to McGregor, a Theory X manager will focus on methods of control and punishment to drive productivity. In contrast a Theory Y manager will focus on creating the right conditions for the employees to be largely self-directed.

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#### **Table 9.1 McGregor's Theory X and Theory Y**

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**Theory X managers believe that employees...****Theory Y managers believe that, given the right conditions, employees...**

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Hate work	Like and need work
Seek money and security	Seek to be involved and realise their potential
Have to be forced to work	Drive themselves and work effectively
Prefer to be told what to do	Take initiative
Are rarely creative	Are naturally highly creative
Are selfish	Commit themselves to larger goals

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Whether employees display Theory X or Theory Y behaviour is a consequence of how management treat them. This means that generally managers will get what they expect – if they expect and manage for Theory X behaviour, they will typically get employees displaying Theory X behaviour.

McGregor also notes that Theory Y behaviour leads to better outcomes for an organisation as it typically results in greater productivity. This holds particularly true for large organisations undertaking complex work. This concept is strongly related to Schneider’s culture change model (see [Section 3.2](#)) – Theory ‘Y’ managers enable transformation to Agile, whereas theory ‘X’ managers block Agile.

An Agile leadership style should be in alignment with McGregor’s Theory Y, which views employees in a positive light. As in Agile, that puts individuals and teams first, McGregor’s research outcomes prove that teams under Theory Y management showed better performance in comparison to Theory X teams.

### **9.1.3 Some factors only demotivate**

In another classic study on motivation, this time in 1968, a researcher named Herzberg proposed a refinement to Maslow’s and an addition to McGregor’s approach (Herzberg, 1968). He investigated the determining factors that influence employee motivation and performance. The research outcomes divided the factors found into two distinct categories:

- hygiene factors – which do not contribute to job satisfaction, although their absence may have detrimental results; and
- motivators – which give positive satisfaction.

Hygiene factors comprise: pay, company policy, quality of supervision/management, working relations, working conditions, status and security. Motivators comprise: achievement, recognition, responsibility,

advancement, learning, type and nature of work.

He found that a number of the things people often think of as motivational don't in fact motivate at all. For example, Herzberg discovered that increasing salary, status, job security and so on do not necessarily increase people's satisfaction with their work – they do not energise them and leave them smiling at the end of a long day. This does not mean that people are indifferent to these things – but they are hygiene factors rather than motivational factors. This means that not having them in a quantity that is perceived as fair will lead to dissatisfaction and demotivation. However, increases beyond this minimum requirement have no effect on people's motivation.

On the other hand, Herzberg found that there are factors that do lead to higher motivation; in particular making the work itself more challenging and meaningful, recognising people for doing a great job and giving people the ability to grow their skills and experience.

#### **9.1.4 Motivation comes from autonomy, mastery and purpose**

More recently in 2010, Daniel Pink expanded on McGregor's work and looked at the conditions required for employees to adopt Theory Y behaviour and achieve higher levels of performance (Pink, 2009).

He suggested that work patterns were changing and there were fewer and fewer jobs that could be managed with what he refers to as the 'carrot-and-stick' approach (Theory X). Harnessing the intrinsic motivations of employees ('self-actualisation' in Maslow's hierarchy) therefore becomes a significant competitive advantage for companies.

Examples of recent success based on harnessing intrinsic motivation include Wikipedia, the Open Source software movement and the growth in businesses with a social mission.

Pink summarises the factors that need to be present to release high levels of motivation and drive as autonomy, mastery and purpose.

- **Autonomy** – people's desire to direct their own lives and to gain control over some (or all) of the four main aspects of work: what, how, when and with whom.
- **Mastery** – becoming better at something that matters to an individual. This can be achieved by taking on tasks that allow people to develop skills further. Mastery is fostered by an environment where learning is encouraged and mistakes are tolerated.
- **Purpose** – fulfilling a natural desire in people to contribute to a cause greater than themselves.

#### **9.1.5 Talent comes from purposeful practice**

To achieve high performance, motivation needs to be coupled with **talent**. So where does talent come from? Are people born with it or can they acquire it?

Matthew Syed argues for the latter, and states that (Syed, 2011):

- 10,000 hours of practice is a minimum to become ‘talented’ (= 2.7 hours a day for 10 years). While people are attracted to stories of child prodigies or the effortless genius, Syed claims that talented individuals invariably always got a unique opportunity to put in a lot of practice very early on in life. Mozart, for example, who composed his first true masterpiece at 21, has been calculated to have put in an eye-watering 3,500 hours of music practice even before his sixth birthday.
- Practice needs to be purposeful. Not all practice is useful. People only develop when they repeatedly try things that are just out of reach and get quality feedback on their performance. The paradox of excellence is that it is built on necessary failure. The learning process is often best facilitated by an expert coach. For example, whilst Mozart’s father was only so-so as a musician, he was highly accomplished as a teacher. His book on violin instruction published the year Mozart was born remained influential for decades.

Laslo Polgar (1989) provides perhaps the most amazing and audacious demonstration of the effects of purposeful practice. A Hungarian educational psychologist and early advocate of the practice theory of talent, he set out to show that by purposeful practice, his three daughters could become world-class in a chosen area.

He selected chess as, unlike art or music, chess provides an objective rating for a player, which meant that the results of the demonstration would be clear. Also, he himself had no particular background in chess. The results were clear indeed. Laslo’s three daughters are:

- **Susan** First ever female Grandmaster.
- **Sofia** International Master.
- **Judit** Youngest ever Grandmaster, considered greatest female chess player of all time.

Engaging in purposeful practice leads to high performance – and the opposite is also true. Experiments by Dweck (2012) suggest that treating people as being innately talented (i.e. considering talent as something they are born with) disempowers them to the extent that there is a drop in performance. This is because they act in fear of being ‘found out’ that they are not as talented as expected.

## **9.2 EMERGENT DESIGN FROM SELF-ORGANISING TEAMS**

The eleventh of the twelve principles underlying the Agile Manifesto is ‘The best architectures, requirements, and designs emerge from self-organising teams.’ This section discusses what ‘emergent design’ means, why it is so important and why self-organising teams are vital to the concept of emergent design.

### **9.2.1 ‘Emergent design’ – why is it important?**



Agile teams aim to unrestrict business and technical opportunities by not designing everything up front; instead design is based on facts that are learned whilst developing stories. The fundamental design thinking that is in place is driven by the concept of ‘last responsible moment’ (a concept from Lean; Liker, 2004). The ‘last responsible moment’ is the moment at which something needs to happen, for example a design decision needs to be made.

This ties in with the concept of ‘real options’ (Matts, 2007), which means keeping your options open for as long as you possibly can and making a decision when you are in the best position to make it with confidence.

An example might be having to put out an order for a piece of hardware, which has a certain lead time on it. The last responsible moment is governed by that lead time, and we have to find out enough about the hardware to make the order by that time. This means we need to do enough experimentation and development to gather the required knowledge by the time the last responsible moment comes, so that we make the right decision. We might even find that at the last responsible moment we don’t actually need it anyway.

It may appear attractive to make all design decisions up front, commonly known as big design up front (BDUF). However, there are two main advantages to implementing the last responsible moment when making design decisions:

- If all design decisions are made up front, any changes may cause significant implementation effort. This will restrict opportunities to change and improve the design as the product is being developed. If design decisions are made at the last responsible moment, it means design opportunities can be implemented as they arise. This is commonly known as ‘opportunistic design’, and is a key enabler to allow businesses to be flexible.
- If teams wait until the last responsible moment to make design decisions, they can make decisions based on evidence that is identified as the system is being built. This typically means that decisions are of a higher quality, because they are not just theoretical decisions based on little evidence.

Therefore, in an Agile product delivery, teams do not implement BDUF, they implement EDUF (enough design up front). How much design is ‘enough’ design depends on the dynamism of the environment in which the product is being built, the experience of the team, and many other factors. What is essential is that somebody in the team understands enough about the technical design risks associated with what is being built to make decisions on what elements of the design it is safe to develop, and what elements of the design need to be defined up front.

What defines EDUF largely depends on the complexity and size of the Agile delivery. If Agile is applied across a programme or project that is larger than a couple of teams, then the project will need to ensure that all the teams align to a single design and architecture that can be integrated. Therefore medium to large Agile deliveries may need some high-level design architecture principles and

enough design up front to enable the teams to design their services and components in a way that is flexible but enables integration.

More information on technical excellence and good design within Agile is available at [Section 10.4](#).

### **9.2.2 Self-organising teams and emergent design**

As discussed in [Section 6.2.2](#), self-organising teams are empowered, within agreed boundaries, to deliver fit-for-purpose products, in a fit-for-purpose way, within the most effective timescale.

Typically what happens within a self-organising team in relation to emergent design is that there will be some overarching design principles that teams must or should align to. However, whenever detailed design decisions are to be made, teams will make them, for the following reasons:

- If teams are forced to align to an externally defined detailed design they are unlikely to ‘go the extra mile’ to try and identify or implement any opportunities to make the design better (opportunistic design).
- It is likely that the only people who can effectively make the right detailed design decisions are team members. Nobody else will understand the evolving design as well as the team does.

## **9.3 TEAM DYNAMICS**

To be successful, Agile teams need to develop high levels of trust and collaboration between team members, customers and stakeholders. Management will need to articulate a compelling team purpose and also be willing to transfer real power to the teams. This section looks at ways to identify team dynamics as well as dysfunction in teams to help the Agile lead to put actions in place to increase team dynamics.

### **9.3.1 Tuckman’s theory of team evolution**

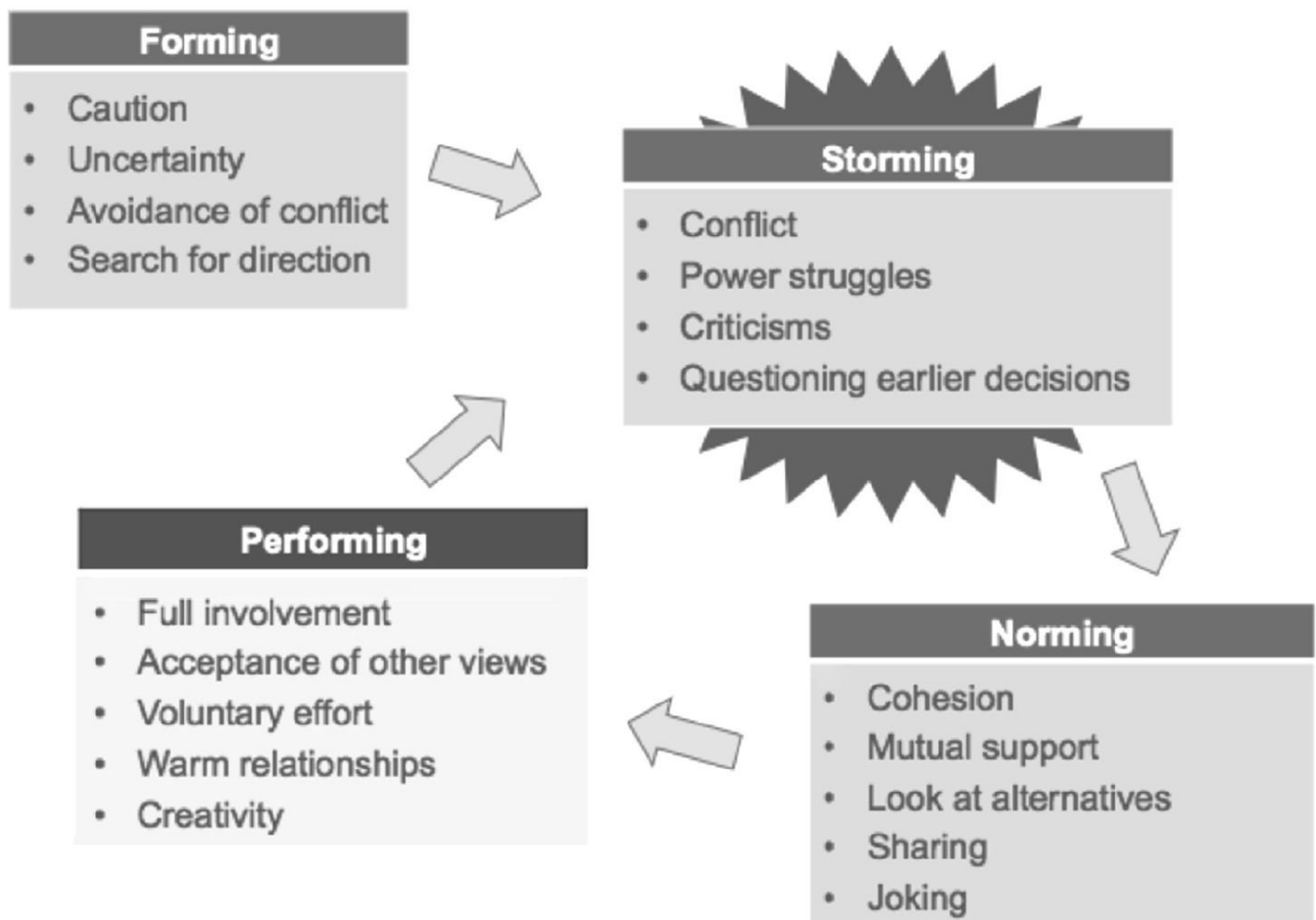
Bruce Tuckman (1965) observed that teams do not function effectively as a unit all the time. Rather, teams go through different states. The state in which a team is most productive is referred to as ‘performing’. Other possible states for teams are ‘forming’ (polite and cautious when a team is new), ‘storming’ (conflict comes to the surface) and ‘norming’ (conflict is being resolved) (see [Figure 9.2](#)).

Whilst a team will need to run through these stages to achieve a ‘performing’ state, there is no guarantee that it will remain there. External factors or change, such as the introduction of a new team member, may cause teams to revisit the ‘storming’ stage.

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### **Figure 9.2 Tuckman’s theory of team evolution**





### 9.3.2 Lencioni – the five dysfunctions of teams

This is a model developed by Patrick Lencioni (2002; [Figure 9.3](#)). It lists five dysfunctions that prevent high performance.

The five dysfunctions are:

- **Absence of trust** – Team members need to be able to trust each other by being ‘vulnerable’ and admitting that everyone can make mistakes. This is where the Agile lead needs to start the process by talking about experiences they have had and actions that highlight their own weaknesses, thereby showing where they need the team’s support.
- **Fear of conflict** – Often people ‘fear to rock the boat’ as this is indicative of a disruptive and ‘non-collegiate’ colleague. This creates the psychological phenomenon of ‘group think’. If teams actively suppress dissenting viewpoints and isolate themselves from outside influences, then they will only have a very limited, inward-looking approach to problem solving. Therefore, it is vital to encourage debate and alternative viewpoints so that an outward thinking approach evolves.
- **Lack of commitment** – This is also sometimes referred to as ‘cabinet responsibility’. Cabinet responsibility refers to the fact that, if there is a vote of no confidence passed in parliament (Westminster), the government is collectively responsible and resigns as a whole. For Agile teams, this means that, following a healthy debate in a conflict discussion, the Agile lead must identify and state a clear ‘goal’ and get the team’s commitment to it. Any

meeting where individuals leave and then go against the commitment undermines everything that the team do.

- **Avoidance of accountability** – In a team, individuals need to be held to account. This is not about assigning blame, but about committing to an outcome, meaning that a team member says to the other team members and the lead that they can get this done and will be accountable for doing so. The Agile lead is responsible for ensuring that individual members are not ‘over-committing’ during the process and that collectively the team gather around to support and help members who are struggling.
- **Inattention to results** – This is about the team being accountable for the overall result and the Agile lead keeping the team focused on that, rather than allowing individuals to ‘showboat’ their personal success. An important aspect of this is the decision on what should be measured when deciding a course of action and then sticking to that as the measureable. It is the true focus on collective accountability.

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**Figure 9.3 Lencioni: five team dysfunctions**



Key to Lencioni's thinking is to recognise the simplicity of the pyramid. In a way we can think of the pyramid as a building construction. If you have no foundations (i.e. trust), then the house will collapse. If you have a building that is not watertight with a good roof (i.e. inattention to results), then the weather (business climate and conditions) will quickly seep into the rest of the building and destroy what you have built.

To summarise and re-frame the five dysfunctions as positives (see [Figure 9.4](#)), functional teams will:

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**Figure 9.4 Lencioni: a functional team**



- trust their colleagues;
- hold passionate and unfiltered debate on important issues;
- commit to goals;
- hold their members accountable for commitments;
- have a collective set of results that are well understood.